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09/901,000	07/09/2001	Teruo Kamada	SHM/12585	6853

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EXAMINER

FISCHMANN, BRYAN R

ART UNIT	PAPER NUMBER
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3618

DATE MAILED: 04/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/901,000

Applicant(s)
KAMADA, ET AL

Examiner
Bryan Fischmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb 24, 2003
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above, claim(s) 4-8, 11, and 16-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 9, 10, and 12-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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Acknowledgments

1. The Substitute Specification (paper 8) and Amendment (paper 9) filed 2-24-2003 has been entered.

Election/Restriction

2. Newly submitted claims 11 and 16-18 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

These claims are drawn toward some alternate embodiments shown on Figure 8 which include apertures spaced from the bending line in addition to apertures located on the bending line (21 and 22 of Figure 3B). Note that original claim 1 recites "...a blank material having a formed portion...a backing plate...having at least one aperture located in a position corresponding to the formed portion to cope with a characteristic of the blank material".

Note also that Applicant recites on page 7 "The term "formation" used herein means a plastic deformation processing such as bending...". From this, the term "formed portion" in claim 1 is equated with the bent portion, or bending lines 21 and 22 on Figure 3B.

From this, it is understood that Applicant originally claimed only those embodiments on Figure 8 (Figures 8a and 8i) that corresponded to apertures being located on the "formed portion" or bending line of the backing plate and not those embodiments on Figure 8 (Figures 8b-8h) having apertures which are spaced from the formed portion, or bending line as now being claimed. From this, it is understood that Applicant did not originally elect to prosecute the

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species presented on Figure 8 corresponding to Figures 8b-8h, since these Figures include apertures which are spaced from the formed, or bent portion of the backing plate.

Since Applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 11 and 16-18 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

3. In paper 6, the Applicant replied to a restriction requirement by electing to prosecute invention I, claims 1-3 of paper 5, without traverse. Therefore, it is requested Applicant cancel claims 4-8 which are drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Claim 9 recites "...wherein the aperture is designed so as to make a section modulus of the backing plate equal to a section modulus of the blank material...".

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The Examiner cannot find support in the original claims or disclosure for this recitation in the original disclosure or claims and it is therefore considered new matter. Per Section 2163.06 of the MPEP, new matter in the claims should be rejected under 35 USC 112 first paragraph, written description requirement.

Also, the backing plate is best understood to be reference number 13 and the blank material is best understood to be reference number 12. Figure 1 shows the cross-sectional area of the blank material 12 to be many times that of the backing plate 13. The term "section modulus" from the discipline of mechanics of materials is best understood to be the ratio of (I/c) where I is the moment of inertia and c is the distance from a neutral axis where there is no bending stress to the outer fiber of the section, where bending stress is maximum. From this, it is difficult to see how the section modulus of the blank material and backing plate may be made equal, since the area moment of inertia of these two parts will be largely different, as the blank material has a cross-sectional area many times that of the backing plate, as may be seen in Figure 1. Note that the area moment of inertia is calculated using the dimensions of a cross-section of an object.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 1-3, 9, 10 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art Figures 19A and 19B and associated Background portion of the Instant Application related to these Figures, in view of British Patent 2197810.

Prior art Figures 19A and 19B and associated Background portion of the Instant Application related to these Figures teaches a vehicular part comprising a blank material (201) formed from a sheet metal (line 13 of page 2 of the Instant Application) and having a bent portion (204 and 205); and

a backing plate (202) joined with the blank material (Figures 19A and 19B) and having a bent portion (204 and 205) corresponding in position to, and bent along a same bending line as, the bent portion of the blank material.

Prior art Figures 19A and 19B and associated Background portion of the Instant Application related to these Figures fails to teach the backing plate has at least one aperture formed at the bent portion and located on the bending line.

However, British Patent 2197810 teaches that a row of holes placed along a bend line facilitates bending (third paragraph of page 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a row of holes along the bending line of the bent portion of the backing plate of Prior Art Figures 19A and 19B, as taught by British Patent 2197810.

Although it is noted that British Patent 2197810 teaches that these holes are to facilitate hand bending, it is noted that claim 1 is an apparatus claim and the method of forming the

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apparatus is not considered germane to the apparatus claimed. Note that Section 2113 of the MPEP recites "The patentability of a product does not depend on its method of production". Note that the apparatus of claim 1 may be formed by hand bending, as well as by machine bending.

Regarding claims 2 and 3, see Prior Art Figures 19A and 19B and lines 12-23 of page 2 of the Instant Application.

Regarding claim 9, note that Prior Art Figures 19A and 19B show a backing plate and blank material which are configured similarly to Applicant's Figures 1-3.

Regarding claim 10, note that British Patent 2197810 teaches plural apertures formed on the bending line.

Regarding claim 12, the Examiner takes Official Notice that apertures are commonly constituted as holes and that holes are round. This may be seen by utilizing a drill and drill bit to drill a hole through an object.

Regarding claims 13 and 14, note that it is considered within the skill level of one of ordinary skill in the art to change the shape of an object. See Section 2144.04 of the MPEP. Changing the shape of an aperture from round to oblong or elongated rectangular shape is advantageous in that the oblong or elongated rectangular aperture provides a larger area of reduced moment of inertia further facilitating the bending of the backing plate along the bending line. Also, providing for larger "transition" areas between that portion of the backing plate with reduced area moment of inertia (due to apertures) and with the "full" moment of inertia (no

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apertures) is also advantageous in that unwanted stress concentrations are reduced over that which would be present with only a round aperture only, due to the larger "transition area". Unwanted stress concentrations are disadvantageous in that they facilitate fatigue failure and corrosion.

Regarding claim 15, again note that it is within the skill level of one of ordinary skill in the art to change the shape of an object for reasons noted above. Note that an "irregularly" shaped aperture is advantageous in that a larger irregularly shaped object is advantageous in that it facilitates bending of the backing plate and reduces stress concentrations over a smaller round hole as discussed above. An irregularly shaped aperture may also be advantageous in that the irregularly shaped aperture may be made by a punch instead of making a round hole utilizing a drill. The use of a punch is generally less time consuming than a drill.

Note also that per Section 2129 of the MPEP, admitted prior art is available against the claims.

8. Claims 1-3, 9, 10 and 12-15 are alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art Figures 19A and 19B and associated Background portion of the Instant Application related to these Figures, in view of Japanese Patent 59-202119.

Prior art Figures 19A and 19B and associated Background portion of the Instant Application related to these Figures teaches a vehicular part comprising a blank material (201) formed from a sheet metal (line 13 of page 2 of the Instant Application) and having a bent portion (204 and 205); and

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a backing plate (202) joined with the blank material (Figures 19A and 19B) and having a bent portion (204 and 205) corresponding in position to, and bent along a same bending line as, the bent portion of the blank material.

Prior art Figures 19A and 19B and associated Background portion of the Instant Application related to these Figures fails to teach the backing plate has at least one aperture formed at the bent portion and located on the bending line.

However, Japanese Patent 59-202119 teaches the use of an aperture (3) along a bend line facilitates bending (English Language Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a row of holes along the bending line of the bent portion of the backing plate of Prior Art Figures 19A and 19B, as taught by Japanese Patent 59-202119.

Regarding claim 9, note that Prior Art Figures 19A and 19B show a backing plate and blank material which are configured similarly to Applicant's Figures 1-3.

Regarding claim 10, note that per Section 2144.04 of the MPEP, it is within the skill level of one of ordinary skill in the art to duplicate parts. Duplicating the hole (3) along the bending line is advantageous in that additional holes, especially in wider parts, further facilitates bending.

Regarding claim 12, see Figure 2 of Japanese Patent 59-202119.

Regarding claim 13, see Figure 3 of Japanese Patent 59-202119.

Regarding claim 14, note that it is considered within the skill level of one of ordinary skill in the art to change the shape of an object. See Section 2144.04 of the MPEP. Changing

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the shape of a hole from round to an elongated rectangular shape is advantageous in that the elongated rectangular aperture provides a larger area of reduced moment of inertia further facilitating the bending of the backing plate along the bending line. Also, providing for larger “transition” areas between that portion of the backing plate with reduced area moment of inertia (due to apertures) and with the “full” moment of inertia (no apertures) is also advantageous in that unwanted stress concentrations are reduced over that which would be present with only a round aperture only, due to the larger “transition area”. Unwanted stress concentrations are disadvantageous in that they facilitate fatigue failure and corrosion.

Regarding claim 15, again note that it is within the skill level of one of ordinary skill in the art to change the shape of an object for reasons noted above. Note that an “irregularly” shaped aperture is advantageous in that a larger irregularly shaped object is advantageous in that it facilitates bending of the backing plate and reduces stress concentrations over a smaller round hole as discussed above. An irregularly shaped aperture may also be advantageous in that the irregularly shaped aperture may be made by a punch instead of making a round hole utilizing a drill. The use of a punch is generally less time consuming than a drill.

Note also that per Section 2129 of the MPEP, admitted prior art is available against the claims.

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Response to Applicant's Remarks (paper 9) and Examiner's Comments

9. The amendment (paper 9) and Substitute Specification (paper 8) resolved all specification and claim objections and 112 2nd paragraph rejections made on the first Office Action (paper 7).

10. Applicant's arguments with respect to the 103 rejections made on the first Office Action in the "Remarks" section of the amendment have been considered, but are moot in view of the new grounds of rejection made in this Office Action which was necessitated by amendment to the claims.

Conclusion

11. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

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will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A) Upson - teaches an aperture through a bend

B) Wells - teaches an aperture through a bend

C) Grimland - teaches the use of an aperture (3) to facilitate bending

D) Japanese Patent 3-161128 - teaches the use of a backing plate at a bend

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Bryan Fischmann whose telephone number is (703) 306-5955. The examiner can normally be reached on Monday through Friday from 7:30 to 4:00.

If attempts to reach the Examiner by telephone are unsuccessful, the examiner's supervisor, Brian Johnson, can be reached on (703) 308-0885. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

BF

04/10/03

Brian J. Johnson
4/16/03

FIG. 19A
(PRIOR ART)

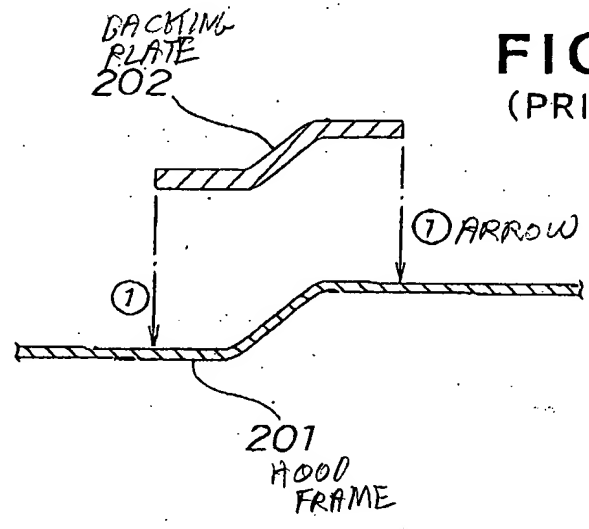
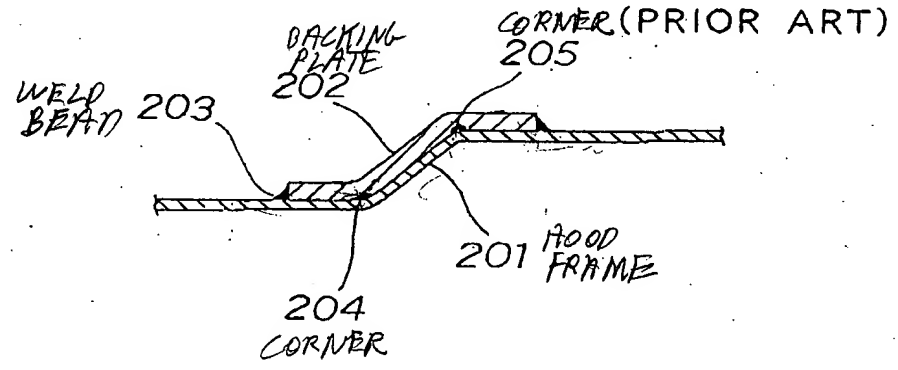


FIG. 19B



09501000.070901